

AMENDMENTS TO THE DRAWINGS

Fig. 3 has been amended as follows:

In output of Block 51 ... “Iq” has been changed to --Iqref-- and “Id” to --Idref--;

In Block 59 ... “2-PHASE/3-PHASE COORDINATE CONVERTING UNIT”
has been changed to -- 3-PHASE/2-PHASE COORDINATE CONVERTING UNIT--;

Near the front of the arrow from Iu to Iv, “-“ (minus sign) is added; and

Near the front of the arrow from Iw to Iv, “-“ (minus sign) is added.

Attachment: One Replacement Drawing Sheet (including Fig. 3)

REMARKS

Claims 20-31 are all the claims pending in the application. Claims 1-19 have been canceled. New claims 20-31 have been added. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Objections

- The Examiner objected to claims 6 and 7 under 37 C.F.R. 1.75(c) as being in improper form, because a multiple dependent claim cannot depend from a multiple dependent claim. This objection is now believed to be moot.
- Additionally, the Examiner objected to the claims because they include reference characters which are not enclosed with parentheses. Applicants respectfully traverse this objection for the following reasons. Idref, Iqref, ed and eq, etc. are not reference characters but, instead, are names of signals of the current and the voltage. Accordingly, they need not be enclosed within parentheses.

Double Patenting

The Examiner objected to claim 19 under 37 C.F.R. 1.75 as being a substantial duplicate of claim 1. This objection is believed to be moot.

Claim Rejections - 35 U.S.C. § 102

The Examiner rejected claims 1-5 and 19 under 35 U.S.C. 102(b) as being anticipated by US Patent 6,504,336 to Sakamaki (hereinafter Sakamaki). Inasmuch as the Examiner may now attempt to apply this rejection to new claim 20, Applicants respectfully traverse it as follows.

The content of independent claim 20 is different from Sakamaki in the following points:

In Sakamaki, the current command values iqa^* and ida^* are obtained by the feedback of iqa and ida from the detected motor current values (iva , iua) obtained by 3-phase/2-phase conversion at the Component 68 (three phase AC/COORDINATE TRANSFORMATION).

On the other hand, in the presently claimed invention, the phase current command values are obtained as themselves by the feedback of the detected motor phase currents in each phase without the 3-phase/2-phase conversion (please refer to FIG. 8).

Sakamaki is almost same prior art with the prior art cited in the present application (Japanese Publication No. 2001-18822). Comparing Fig. 2 of Sakamaki with Fig. 1 of the above prior art (same with FIG. 3 of the present invention), it can clearly be seen that both are the same.

Corresponding numerals in Fig. 2 of Sakamaki and FIG. 3 of the present application are as follows:

(Sakamaki) (present invention)

Component 61 = Component 64

Component 66 = Component 51

Component 69d = Component 522

Component 69q = Component 521

Component 70 = Component 68

Component 68 = Component 59

Component 67d, 67q = Component 581, 582

Component 41U, 41V = Component 571, 572

Component 72 = Component 53

Component 51 = Component 54

Component 52 = Component 55

Component 45 = Component 66

Component 65 = Component 67

The present invention was made to overcome the problems of the above prior art (which is the same as Sakamaki) cited in the specification of the present application. Therefore, the

present invention has good effects which cannot be obtained from Sakamaki as disclosed from the 2nd line from the bottom on page 32 to line 11 on page 33 of the specification. Therefore, there is no possibility that Sakamaki is recognized as the same with the present invention.

Next, the difference between Sakamaki and new claim 26 can be explained as follows:

In new claim 26, the calculating method of Iqref in q-axis command current calculating unit has the characteristic feature that Iqref is calculated “by substituting a rotation angle, an angular velocity, and a counter-electromotive force of the motor, the current command value Idref, and a torque command value to the motor into a motor output equation”. Such feature is not disclosed in Sakamaki.

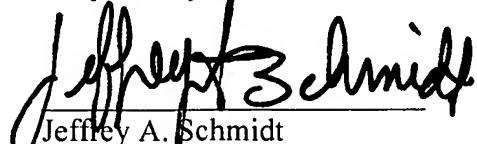
For at least the above reasons, new claims 20 and 26 are not anticipated by Sakamaki. Likewise, dependent claims 21-25 and 27-31 are not anticipated by this reference.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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